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Klaus Abraham-Fuchs

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KLAU ABRAHAM-FUCHS and  
KAI-UWE SCHMIDT

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Appeal 2009-006241  
Application 09/742,268  
Technology Center 3600

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*Before* HUBERT C. LORIN, JOSEPH A. FISCHETTI, and  
FRANCISCO C. PRATS, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Klaus Abraham-Fuchs et al. (Appellants) seek our review under 35 U.S.C. § 134 (2002) of the final rejection of claims 1-28. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM-IN-PART.<sup>2</sup>

## THE INVENTION

This invention is “a method for a patient, who suffers from a neurological disease which is treated with medication, to self-monitor his or her current state.” Specification 1:8-10.

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A method for allowing a patient, suffering from a neurological disease and receiving medication for said disease, to self-monitor the patient's actual state, comprising the steps of:
  - providing a computer at a location readily accessible to a patient substantially on a daily basis for acquiring information from a patient:
  - acquiring information, via an interactive procedure, from a patient wherein the acquired information is selected from a group consisting of information characterizing a motor function of the patient, information characterizing a verbal

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<sup>2</sup> Our decision will make reference to the Appellants’ Appeal Brief (“Br.,” filed Jul. 3, 2007) and the Examiner’s Answer (“Answer,” mailed Oct. 18, 2007).

communication ability of the patient, and  
information characterizing cognitive abilities of  
the patient;

providing an expert system accessible by the  
computer;

providing said acquired patient information  
to said expert system for processing thereby, and  
determining, from the acquired information, at  
least one quantified indicator describing the state  
of the patient suffering from a neurological disease  
which is treated with medication; and

providing said computer with an output  
device and making said quantified indicator  
available to the patient via said output device.

#### THE REJECTION

The Examiner relies upon the following as evidence of  
unpatentability:

Kaufman	US 5,868,135	Feb. 9, 1999
Fischell	US 6,354,299 B1	Mar. 12, 2002

The following rejection is before us for review:

1. Claims 1-28 are rejected under 35 U.S.C. §103(a) as being  
unpatentable over Fischell and Kaufman.

#### ISSUES

The issue is whether claims 1-28 are unpatentable under 35 U.S.C. §  
103(a) over Fischell and Kaufman. Specifically, the major issue is whether  
one of ordinary skill in the art would have been led by Fischell and Kaufman  
to a method that includes: the recited step of acquiring information, via an

interactive procedure; the recited step of providing said acquired patient information to said expert system for processing thereby, and determining, from the acquired information, at least one quantified indicator describing the state of the patient; and the recited step of providing said computer with an output device and making said quantified indicator available to the patient via said output device.

### ANALYSIS

#### *Claims 1, 5-8, 14, 15, and 16*

The Appellants argued claims 1, 5-8, 15, and 16 as a group (Br. 8-14). We select claim 1 as the representative claim for this group, and the remaining claims 5-8, 15, and 16 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2009). We note that the Appellants have failed to include arguments directed to dependent claim 14 and, therefore, claim 14 will also stand or fall with claim 1.

First, the Appellants argue that neither Fischell nor Kaufman teaches an interactive procedure that allows a patient to self monitor. Br. 9-11 and 13-14. The Appellants' argument seems to be based on the claim requiring that the interactive procedure be "between the patient and the computer in order to allow the patient to provide (communicate) information to the computer." Br. 9. However, this is not required by claim 1. Claim 1 recites a step of "acquiring information, via an interactive procedure, from a patient wherein the acquired information is selected from a group consisting of information characterizing a motor function of the patient, information characterizing a verbal communication ability of the patient, and information characterizing cognitive abilities of the patient." This does not require the

interactive procedure to be between a patient and the computer and does not preclude other interactive procedures, such as the device in Fischell interacting with the patient's body.

Second, the Appellants argue that neither Fischell nor Kaufman teaches "providing the acquired patient information to an expert system for processing thereby, and determining, from the acquired patient information, at least one quantified indicator describing the state of the patient suffering from a neurological disease which is treated with medication" as recited in claim 1. Br. 10-12. The Appellants argue that Fischell is concerned with providing instant medical responses and not providing the information to an expert system. Br. 10. The Appellants also argue that neither Fischell nor Kaufman teaches "providing said computer with an output device and making the quantified indicator available to the patient via the output device" as recited in claim 1. Br. 12. Finally, the Appellants argue that

it would not be obvious to combine the systems of Fischell and Kaufman, as both are concerned with entirely different testing and/or monitoring schemes. Specifically, Fischell is concerned with an implantable device that can monitor a patient's physiological indicators and Kaufman is concerned with external method of testing a patient's physiological indicators (Br. 12-13).

However, while Fischell does describe providing instant relief (*for example see* col. 9, ll. 50-55), Fischell also describes a physician receiving workstation receiving data, including EEG data, from Fischell's device and analyzing the data (*see* col. 15, ll. 8-24; col. 24, ll. 7-14). Kaufman describes a patient monitoring system and teaches that the system can measure the patients, temperature, blood pressure, etc. and display the value

on readouts. (Col. 4, ll. 40-47). Given these teachings, we find that one of ordinary skill in the art would have been led to determining from the EEG data at least one quantified indicator that describes the state of the patient and displaying the quantified indicator to the patient. The Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248,” *KSR Int’l v. Teleflex Inc.*, 550 U.S. 398, 415 (2007) (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 416. The operative question in this “functional approach” is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*, at 415.

Accordingly, we find that the Appellants have overcome the rejection of claim 1, and claims 5-8, 14, 15, and 16, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

### *Claim 2*

The Appellants argue that neither Fischell nor Kaufman teach the step of conducting software controlled motor function exercises for quantifying at least one of neutral, negative and positive effects of said medication on said patient’s state as recited in claim 2. Br. 14-15. In the rejection, the Examiner cites column 7, lines 1-35 of Kaufman to teach this limitation. Answer 5.

Column 7, lines 1-35 of Kaufman describe a motorized unit that has elements, such as a cuff for a blood pressure test, or a thermometer and a

button or switch to indicate that the patient has correctly placed the cuff or thermometer for a test. We fail to see how this passage of Kaufman teaches conducting software controlled motor function exercises as recited in claim 2, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claim 3*

The Appellants argue that neither Fischell nor Kaufman teach the step of acoustically acquiring speech from the patient and assessing the speech with a speech assessment system as recited in claim 3. Br. 3. In the rejection, the Examiner cites column 4, lines 23-60 to teach this limitation. Answer 6.

Column 4, lines 23-60 describe that Kaufman's system includes a voice synthesizer and recognition unit to provide audio reminders to the patient to take medication and to receive feedback from the patient. We fail to see how this passage of Kaufman teaches acoustically acquiring speech from the patient and assessing the speech with a speech assessment system as recited in claim 3, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 3 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.



*Claim 4*

The Appellants argue that neither Fischell nor Kaufman teach the step of generating questions requiring a response from the patient to the respective patients and, from the responses, generating an information value quantifying at least one of neutral, negative and positive effect of the medication on the patient. Answer 15-16. In the rejection, the Examiner cites column 3, lines 40-67 of Fischell to teach this limitation. Answer 6.

Column 3, lines 40-67 of Fischell describes using EEG signals to detect neurological events. We fail to see how this passage of Fischell teaches generating questions requiring a response from the patient to the respective patients and, from the responses, generating an information value quantifying at least one of neutral, negative and positive effect of the medication on the patient as recited in claim 4, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claims 9-13*

The Appellants argue that neither Fischell nor Kaufman teach the step of providing store information to the expert system, and producing in the expert system an evaluation regarding dosage of the medication based on the stored information and making the evaluation available to the patient at the output device. Br. 16. In the rejection, the Examiner cites column 33, lines 36-67 of Fischell to teach this limitation. Answer 7.

Column 33, lines 36-67 of Fischell describes detecting an adverse physiological condition by a control module, which is implanted in a patient (*see* col. 32, l. 66 –col. 3 and fig. 23), and in response releasing medication via a catheter. We fail to see how this passage of Fischell teaches the step recited in claim 9, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 9, and claims 10-13, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claims 17, 21, 22, 27, and 28*

The Appellants argue claims 17, 21, 22, 27, and 28 as a group (Br. 22). We select claim 17 as the representative claim for this group, and the remaining claims 21, 22, 27, and 28 stand or fall with claim 17. 37 C.F.R. § 41.37(c)(1)(vii) (2009).

Claim 17 recites an apparatus with elements similar to the method of claim 1. The Appellants argue that the apparatus is not taught by Fischell and Kaufman for the same reasons as used to traverse the rejection of claim 1. Br. 17-22. For the same reasons as we discuss above, we are not persuaded by the Appellants' argument. Accordingly, we find that the Appellants have not overcome the rejection of claim 17, and claims 21, 22, 27, and 28, dependent thereon, under 35 U.S.C. § 103(a) over Fischell and Kaufman.

*Claim 18*

The Appellants argue that neither Fischell nor Kaufman describes that the input is a manually operated input and that the software operates the computer to execute motor function test exercises and to produce a quantified information value as recited in claim 18. Br. 22-23.

In the rejection, the Examiner cites to column 21, lines 19-67 of Fischell to teach this limitation. Answer 10. The majority of Column 21, lines 19-67 describes the flow chart of Figure 7 for event recording and processing for event detecting and Figure 8 which describes detecting a neurological event. We fail to see how this passage of Fischell teaches software that operates the computer to execute motor function test exercises and to produce a quantified information value as recited in claim 18, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 18 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claim 19*

The Appellants argue that neither Fischell nor Kaufman teaches that the software program assess speech made by the patient into the input unit using speech algorithms and a phonetic data bank, and produces quantified information representing the verbal communication abilities as recited in claim 19. Br. 23-24. In the rejection, the Examiner cites column 6, lines 61-67 and item 112 of Kaufman to teach this limitation. Answer 11.

Column 6, lines 61-67 describe that the system in Kaufman has a voice synthesis and recognition unit that is coupled to a microphone 112.

We fail to see how this passage of Kaufman teaches software that assess speech made by the patient into the input unit using speech algorithms and a phonetic data bank, and produces quantified information representing the verbal communication abilities as recited in claim 19, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 19 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claim 20*

The Appellants argue that neither Fischell nor Kaufman teaches software that operates the computer to present questions to the patients and to receive responses from the patient, and produces a quantified information value from the responses quantifying at least on of neutral, negative and positive effects of the medication on cognitive abilities. Br. 24. In the rejection, the Examiner cites to column 5, lines 14-45 of Kaufman to teach this limitation.

Column 5, lines 14-45 of Kaufman describes a unit that provides diagnostic testing, such as blood pressure testing, and can transmit accumulated information to a remote medical center computer for analysis to determine whether intervention, such as a change in medication is needed. We fail to see how this passage of Kaufman teaches software that operates the computer to present questions to the patients and to receive responses from the patient, and produces a quantified information value from the responses quantifying at least on of neutral, negative and positive effects of

the medication on cognitive abilities as recited in claim 20, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 20 under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

*Claims 23-26*

Claim 23 recites “wherein said expert system produces an evaluation from said stored information with regard to a dosage of said medication.”

The Appellants argue that neither Fischell nor Kaufman teach the step of providing store information to the expert system, and producing in the expert system an evaluation regarding dosage of the medication based on the stored information and making the evaluation available to the patient at the output device. Br. 24-25. In the rejection, the Examiner cites column 15, lines 43-67 of Fischell to teach this limitation. Answer 7.

Column 15, lines 43-67 of Fischell describes delivering an acoustic signal by a buzzer. We fail to see how this passage of Fischell teaches the limitation of claim 23. We note that for a step reciting similar elements in claim 9, the Examiner cited the Examiner cited Column 33, lines 36-37, which describes detecting an adverse physiological condition by a control module, which is implanted in a patient (*see* col. 32, l. 66 –col. 3 and fig. 23), and in response releasing medication via a catheter. We also fail to see how this passage of Fischell teaches an expert system as recited 23, and the Examiner provides no other explanation (*see* Answer 13-21).

Accordingly, we find that the Appellants have overcome the rejection of claim 23, and claims 24-26, dependent thereon, under 35 U.S.C. § 103(a) as unpatentable over Fischell and Kaufman.

#### DECISION

The decision of the Examiner to reject claims 1, 5-8, 14-17, 21, 22, 27, and 28 is affirmed and to reject claims 2-4, 9-13, 18-20, and 23-26 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

#### AFFIRMED-IN-PART

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